**K-5 Math Lesson Plan**

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| **Teacher: Paul Travers** | | | **Grade: 5** | | | **Date(s)**: August 29, 2012  Teach prior to Task 1 |
| **Unit Title:**  Unit 1 - Understand the Decimal Place Value System | | | | **Corresponding Unit Task:** Teach prior to Task 1 | | |
| **Essential Question(s):**  How does a digit’s position affect its value?  How many different ways can a number be written? | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher: Whiteboard markers, erasers, cheese or bread, plastic slicing utensil, base ten blocks, place value chart** | | **Student:**  **Place value worksheets (with a place value chart), dice, base ten blocks, paper, pencil** | | | **tenths hundredths**  **thousandths expanded form**  **base-ten numeral place value**  **number name pattern**  **multiply divide**  **greater than (>) less than (<)**  **equal to (=) round**  **compare/comparison**  **decimal/decimal point** | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:**  **5.NBT.3a**  **Read and write decimal numbers to thousandths using base-ten, number name, expanded form.**  **(Correlates to NCSCOS Math Objective 1.01)** | | | | | |
| **I Can Statement(s):**  I can compare two numbers to the thousandths using >,<,=.  I can compare decimal place value to the thousandths. | | | | | |
| **Activating Strategy/Hook:**  (How will students become cognitively engaged and focused?)  Select two students to attempt to stop a stopwatch as soon as they see the number 10 (use online computer stopwatch). On the board record the time to the hundredths. Once the time is recorded on the board, call on two more students to label place values. Have students compare the two numbers. Discuss with students how to interpret the importance of the number based on the situation-in basketball, you want to score the largest number; as a runner, you want the fastest time (the smallest number); as a golfer, you want the lowest score. | | | | | |
| **Teacher Directed:**  Using ten slices of cheese or bread (layered to create a block). Emphasize that the block is ONE WHOLE and that this is the whole we will be referring to as we explore fractional/decimal parts. Discuss the value of each individual slice is a tenth of the whole. Ask students how to divide each slice into ten more equal slices (block will be sliced vertically). If this is done ten times across the WHOLE, how many equal parts would there be in total now? Explain that hundredths have been produced. Now explain that if each hundredth is divided into ten equal parts we will have created thousandths. | | | | | |
| **Guided Practice:**  Students will use plastic base ten blocks and model teacher-given decimals to the thousandths. Students will write the base-ten, number name, and expanded form of the number. After completing the model, students will compare their number with another group’s number using comparison symbols greater than, less than and equal to. | | | | | |
| **Independent Practice:**  Students will identify place value to the thousandths, and represent numbers in different forms (number name, expanded, base-ten), on the Place value work sheets below.  **See pg. 3 for Worksheet #1**  **Click link below for worksheet #2:**  <http://www.math-aids.com/cgi/pdf_viewer.cgi?script_name=place_and_value_decimal.pl&ldigits=4&rdigits=3&language=0&memo=&answer=1&x=142&y=27> | | | | | |
| **Closing/Summarizing Strategy:** In journal students choose four digits and create the largest and smallest decimal number. Explain why they matched certain number to certain place values. | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| Roll the die 10 times and get 10 digits. Create five, five digit decimal numbers, and order from least to greatest. | | | Small group base ten block practice, working up the ten thousands place. | | | Given the standard form of a number students will draw it, and verbally repeat the number back. |
| **Assessment(s):**  Collect journals and check for correctness. | | | | | | |
| **Teacher Reflection:** (Next steps?)  Students understandings/misconceptions  Specific notes about students’ thinking  What do I need to reteach/review tomorrow or in future?  New ideas or changes for next time? | | | | | | |

Name:

Number Form Worksheet

Write the missing digits:

34.723 = seven tenths, four units, three tens, three thousandths, ..........................

563.18 = eight hundredths, six tens, five hundreds, three units, ...........................

2710.99 = nine tenths, seven hundreds, two thousands, ………………, …………………

Write the numbers below:

Six hundredths, four ones, three hundreds, two tens, nine thousandths

…………………………………………………………………

Seven tenths, two tens, eight hundredths, six hundreds, five thousands

…………………………………………………………………

Nine hundredths, three thousands, two tenths, nine hundreds, seven tens

…………………………………………………………………

Write in number name form, expanded form, and base-ten form the numbers below:

45.245 =

208.249 =

5312.946 =

4070.060 =